

THE OCCURRENCE OF *ELLIPES MINUTUS* (SCUDDER) (ORTHOPTERA: TRIDACTYLIDAE) IN KENTUCKY¹

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ABSTRACT: Tridactylids collected from ten counties across Kentucky have been identified as *Ellipes minutus* (Scudder). Reports of the species across North America are sporadic and undoubtedly reflect the paucity of collections from their riparian habitat. *Ellipes minutus* has not been previously reported from Kentucky.

The orthopteran family, Tridactylidae, is represented by four species in North America (Guenther 1977), *Neotridactylus apicalis* (Say), *Ellipes gurneyi* Guenther, *E. minutus* (Scudder), and *E. monticolus* Guenther. Across the United States, locality records for the species are widespread (Guenther 1975, 1977, 1980) but scarce (Urquhart 1937), most likely due to the paucity of collections from their riparian habitat and the difficulty in capturing these fast, small, exceptionally strong jumpers (Blatchley 1920, Goodwin and Powders 1968). This author inquired into the distribution of the family after a single individual of *E. minutus* was collected in a Surber sample from a stream in eastern Kentucky.

There are no published reports of the family from Kentucky, and there are no Kentucky specimens housed at the University of Michigan Museum of Zoology in Ann Arbor; the Academy of Natural Sciences in Philadelphia; the National Museum of Natural History in Washington, D.C.; or the Eastern Kentucky University Insect Collection in Richmond. Ninety specimens of *E. minutus* were found in two museums, the University of Louisville and the University of Kentucky from the following counties: Breathitt, Fayette, Graves, Henry, Jefferson, Knox, Leslie, Meade, Oldham, and Pendleton. Collection dates were April 12, 18, 19, 26, and 30; May 3, 18, 19, 26, 26, and 27; June 30; July 16; and Sept. 11 and 24.

These specimens are from ten counties scattered across Kentucky including several physiographic regions as follows: extreme western Kentucky in the Gulf Coastal Plain Province (Graves Co.); in the central Bluegrass (Fayette Co.); along the Ohio River in north-central Kentucky (Meade, Oldham, Jefferson, Pendleton, and Henry Cos.); and in the Cumberland Plateau of eastern Kentucky (Breathitt, Knox, and Leslie Cos.). Based on these few definite records in a wide geographic area, it is probable that *E. minutus* is more common and widespread than is presently known throughout Kentucky and perhaps throughout much of North

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America (Merritt and Cummins 1978) primarily due to the scarcity of collections in its habitat.

Unfortunately, information referring to the purported riparian habitat of *E. minutus* is limited to general statements. Blatchley (1920) observed that *E. minutus* is "more abundant about ponds and lakes than along flowing streams," and other authors refer to its apparent preference for "lakes and watercourses" (Hebard 1934), "moist habitats" (Goodwin and Powders 1968), "streams on moist sand banks where they closely resemble their background" (Rentz 1965), and "lentic and lotic margins near quiet water away from wave or splash effects" (Merritt and Cummins 1978). The Knox County, Kentucky, specimen came from a stream with trees, shrubs, and herbaceous plants on the immediate sandy, silty shore with adjacent cornfields. The stream was clear, and the substrate consisted of a stony, sandy bottom with silt accumulating in the pools. It is postulated that *E. minutus* was accidental in the Surber sample and is typically a riparian or semi-aquatic species.

LITERATURE CITED

- Blatchley, W.S. 1920. Orthoptera of northeastern America. The Nature Publishing Company, Indianapolis.
- Goodwin, J.T., and V.N. Powders. 1968. The Grylotalpidae and Tridactylidae (Orthoptera) of Tennessee. *J. Tenn. Acad. Sci.* 43(1): 28-29.
- Guenther, K.K. 1975. Das genus *Neotridactylus* Guenther, 1972. (Tridactylidae: Saltatoria Insecta). *Mitt. Zool. Mus. Berlin* 51: 305-365.
- . 1977. Revision der Gattung *Ellipes* Scudder, 1902 (Saltatoria, Tridactylidae). *Dtsch. Ent. Zeit., N.F.*, 24: 47-122.
- . 1980. Katalog der Caelifera—Unterordnung Tridactyloidea (Insecta). *Dtsch. Ent. Zeit., N.F.*, 27: 149-178.
- Hebard, M. 1934. The Dermaptera and Orthoptera of Illinois. *Ill. Nat. Hist. Surv. Bull.* 20: 125-279.
- Merritt, R.W., and K.W. Cummins. 1978. An introduction to the aquatic insects of North America. Kendall/Hunt Publishing Company, Dubuque, Iowa.
- Rentz, D.C. 1965. Additional locality records of *Tridactylus minutus*. *Pan Pacific Entomol.* 4(1): 70.
- Urquhart, F.A. 1937. Some notes on the sand cricket, (*Tridactylus apicalis* Say). *Canad. Field Naturalist* 51: 28-29.

BOOKS RECEIVED AND BRIEFLY NOTED (Continued)

POPULATION BIOLOGY OF TROPICAL INSECTS. A.M. Young. 1982. Plenum Press. 511 pp. \$57.50.

Author describes major developments in study of insect populations in tropical environments and brings together various concepts and related studies that explain spatial and temporal patterns of tropical insect diversity.